

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application and for courtesy extended during the interviews of April 19, 2005 and May 23, 2005.

Disposition of Claims

Claims 1-15 are pending in this application. Claim 1 is independent. The remaining claims depend, directly or indirectly, from claim 1.

Amendments to the claims

As suggested by the Examiner during the April 19, 2005 and May 23, 2005 interviews, claim 1 has been amended to clarify the invention recited. No new matter has been added by this amendment.

Claims 13 and 14 have been amended to correct typographical errors.

Rejection(s) under 35 U.S.C § 103

Claims 1-15 were rejected under 35 U.S.C. § 103(a) as being obvious over Fraivillig (U.S. Patent No. 6,015,607) ("the Fraivillig '607 patent"). This rejection is respectfully traversed.

The present invention relates to methods for manufacturing a flexible printed circuit bounded to a heat sink using *a process that includes two bonding steps*. A method

in accordance with one embodiment of the invention, as recited in claim 1, includes the following limitations: “*in a first bonding step*, adhering a conductive layer to a first surface of a bond film using a first adhesive layer to produce a circuit substrate, wherein the adhering is achieved by *partially activating the first adhesive layer such that the conductive layer is tack-bonded to the bond film*; after the first bonding step, processing the circuit substrate to produce the flexible printed circuit; and after the circuit substrate is processed, laminating the heat sink to a second surface of the bond film of the flexible printed circuit, *in a second bonding step*, using a second adhesive layer.”

The method, as recited in claim 1, includes three sequential steps: (1) the first bonding step; (2) the circuit processing step; and (3) the second bonding step. Furthermore, the adhesive is only partially activated in the first bonding step to achieve “tack-bond.”

In contrast, the Fraivillig ‘607 patent discloses methods for making flexible laminates using a polyetherimide or a siloxane polyetherimide copolymer. (Abstract). The polyetherimide and siloxane polyetherimide are used to bond the circuit layer in a single bonding step process. It does not teach or suggest a process that includes two bonding steps. Furthermore, it does not teach or suggest that an adhesive layer is only *partially activated to achieve tack-bond in the first bonding step*.

In view of the above, the Fravillig ‘607 patent fails to teach or suggest the present invention as recited in claim 1. Therefore, claim 1 is patentable over the Fraivillig ‘607 patent. Claims 2-15 depend, directly or indirectly, from claim 1 and, therefore, are patentable for at least the same reasons. Accordingly, withdrawal of this rejection is

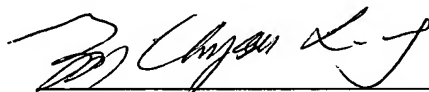
respectfully requested.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 07009.011002).

Respectfully submitted,

Date: May 25, 2005



T. Chyau Liang, Reg. No. 48,885
OSHA · LIANG LLP
One Houston Center, Suite 2800
1221 McKinney Street
Houston, TX 77010
Telephone: (713) 228-8600
Facsimile: (713) 228-8778